

High precision machining

Turning, milling, mill turning, drilling, tapping, grinding, lapping, polishing and dimensional controls

High precision machining & dimensional controls in air-conditioned workshops

Challenge

Manufacturing and dimensional control of complex parts to very tight dimensional tolerances while ensuring stringent traceability

Machined materials: Carbon & stainless steels, Nickel base alloys, including Hastelloy & Inconel / Stellite alloys, Tungsten & Chromium carbides, silicon nitrides / graphite

Solution

Located in Northern France, Framatome Jeumont plant owns a large portfolio of machine tools and coordinate measuring machines to produce.

The plant has ISO and ASME certificates, the Quality Assurance Systems to support international projects and masters ESPN, RCC, ASME, YVL.

Machining services can address a wide range of highly demanding industries, such as Oil & Gas, Energy, Aerospace, Chemical & Pharmaceutical, Ship Industry, Navy & Defense.

With more than 30 Numerical Command machine tools and 12 dimensional Coordinate Measuring Machines, Framatome can address your specific needs:

- **Milling:**
 - 2 milling & boring machines for parts up to 10 tons & 16 tons
 - 4 milling centers for parts up to 8 tons
- **Mill turning:**
 - Pool of 5-axis & 9-axis mill turning machines (2 & 5 units)
 - All equipped with 5-axis milling heads to reach highest productivity
- **Turning:**
 - 3 vertical lathes up to 10 t, 11 horizontal lathes up to 4 t
- **Complementary machining equipment:**
 - 3 surface grinders, 1 cylindrical grinder
 - 1 cylindrical lapping equipment, 3 surface lapping equipment
 - 5 deburring and finishing areas
 - Balancing equipment
- **High precision metrology:**
 - 1 portable 3D laser scanner
 - 4 portable 3D measurement arms (PCMM)
 - 7 bridge type coordinate measurement machines (CMM), including **one of the biggest bridge-type CMM in Europe for parts up to 8 tons**

Customer benefits

- Safety and Quality Conformity
- Management of very high added value components
- Complete process of machining from raw material to finished part, inspection and worldwide shipment
- Some machines in air-con rooms to address deformations
- **Machining Experts located on site** for permanent support

Your performance is our everyday commitment



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Technical information

Machining process	X (mm)	Y (mm)	Z (mm)	Outer Ø (mm)	Load (tons)	Units
Boring & milling	<5000	<2000	<3500		<16	2
Milling	800 -	700 2100	600 1250		<8	4
Turning-horizontal			<5000	<1300	<10	11
Turning-vertical			<1600	<2300	<20	3
Mill turning-horizontal				<600	<1.5	5
Mill turning-vertical				<2000	<4	2
Grinding				<450	<1	2
Dimensional control mean	X (mm)	Y (mm)	Z (mm)	Load (tons)	Accuracy (µm)	
3D scanner	Total volume: 4.4m ³			NA	± 20 µm + 40 µm/m	
PCMM #1-#4	6 axis: 1200/2500/2500 7 axis: 3500			NA	6 axis: ± 24/± 30/± 28 7 axis: ± 92	
CMM#1	500	500	500	0.1	± 2.4 + L/300	
CMM#2	500	600	500	0.15	± 2.2 + L/300	
CMM#3	900	1000	800	0.18	± 1.9 + L/333	
CMM#4	1500	1200	900	5	± 1.7 + L/350	
CMM#5	900	3000	800	1.8	± 1.2 + L/350	
CMM#6	1200	3000	1000	2.25	± 1.7 + L/350	
CMM#7	3000	2000	1600	8	± 1.7 + L/400	

Key figures

24/7 machining activities possible

50 000 hours of yearly capacity

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